Math Connections Worksheet
Tune in Saturdays at 9a.m., 1 p.m., 4 p.m., and 8 p.m.
Time Warner Cable Channel 19

Playing the Hundreds Chart and E's Sieve

Purpose: Reinforce the similarity of patterns in adding, subtracting and multiplying for 2nd graders up.

Materials: Several copies of the 100s Chart and Eratosthenes' Sieve from the Channel 10 site or handwritten. Pencil and colors.

Using the hundreds chart, start with fact like 13 – 6 = 7. Draw a net or color to represent that fact on the 100s Chart. Then do the same thing with an associated subtraction fact like 23 – 16 = 7 or 23 – 6 = 17. Continue, going up by tens. For instance, next you might subtract 33 – 26 = 7 or 33 – 6 = 27 or 33 – 16 = 17. Look for patterns in the 100s chart.

Change 100s chart and facts until the pattern associated with increasing by 10s is obvious. Progress from counting back to using the pattern with 10s and the 100s chart to find the difference in using your brain, not your fingers. Finally, work orally with the same pattern.

Using Eratosthenes' Sieve, color all even numbers (divisible by 2) yellow. Notice that three of the six columns, or half the numbers, are yellow. Then color all the multiples of three red. Notice now that a third of the numbers are red, and the sixth column is both yellow and red. What do all the numbers in column 6 have in common, besides being multiples of 2 and 3?

Now move to all multiples of four. Color them green. Where are they found? Next color all the multiples of five blue. What kind of a pattern do they make? Continue through the multiples of seven, each time finding a pattern. Talk about the multiple patterns in the sieve and in multiplication. Finally, orally or with flash cards work through the multiples instead of just skip counting.